Dynamics of short-term cross-dialectal accommodation. A study on Grison and Zurich German

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Accommodation, or the tendency of interlocutors to mutually adapt their linguistic behaviour during interactions or after increased exposure to communication partners, is a pervasive phenomenon in speech communication. If accommodation happens frequently enough between speakers of different dialects or accents short-term accommodation is hypothesised to bring about language variation and change (Trudgill, 1986). A study on vowel convergence between Swiss German dialects have shown that Zurich German (henceforth ZH) speakers converge more to Grison German (henceforth GR) speakers than vice versa, especially in low vowels and in words which served as stimuli in the dialogue (Ruch, 2015). This means that an innovation would occur in ZH dialect and this innovation would involve firstly low vowels, the most acoustically distant vowels between the two dialects. Understanding whether patterns of vowel convergence would echo in other cross-dialectal acoustic differences is thus of fundamental importance for understanding the diffusion of linguistic innovation and dialectal levelling in German speaking Switzerland. Therefore, in this paper we examine whether:

- cross-dialectal segmental temporal differences related to (a) open syllable lengthening (henceforth OSL), (b) geminate/singleton realization of intervocalic sonorants (henceforth ISG), (c) (un)reduced realization of unstressed vowel in word final position (RedVow) are prone to convergence insomuch as vowel quality (Eckhardt, 1991; Fleischer & Schmid, 2006);
- speakers of GR and ZH converge in segmental temporal properties in the same direction as for vowel quality;
- factors like acoustic distance can account for patterns of cross-dialectal phonetic convergence (Babel, 2010). Of the three durational contrasts RedVow is the most acoustically distant feature between the two dialects. Conversely, ISG and OSL are not dialect-specific since GR also admits the realization available for ZH (Table 1).

To study cross-dialectal temporal accommodation, we used the same corpus employed to examine vowel convergence. It comprises 18 audio-recorded dialogues between ZH and GR speakers who perform a diapix task, and 18 pre- and 18 post-dialogue recordings (picture naming task and retelling a story based on a comic), these latter performed individually by ZH and GR participants. To understand whether segmental temporal features evoke cross-dialectal convergence, we extracted lexical items instantiating the three target durational contrasts from the pre- and post-dialogue recordings. In pre- and post- dialogue recordings, we calculated three ratio measures devised to capture the cross-dialectal segmental temporal differences: (1) OSL: ratio between stressed and unstressed vowel within the same word; (2) ISG: ratio between intervocalic sonorants in -CCe words and in -Ce words; (3) RedVow: the ratio between word-final ending and stressed vowel. After that we calculated the Euclidean distances within pair and speaker before and after the interaction. Then, we calculated the difference in distance within a pair (*ddpair*) and within a speaker (*ddspeaker*). We expect that if patterns of vowel convergence replicate for segmental temporal properties, Euclidean distance between pairs of GR and ZH decreases after the interaction, ZH speakers converge more to GR and especially for RedVow (*ddspeaker* values lower than 0).

Preliminary results based on picture naming task show different patterns of accommodation between vowel convergence and segmental temporal properties. The data show that: (a) there are no differences in Euclidean distance within pairs before and after the interaction (fig. 1); (b) GR and ZH speakers did not show any distinctive pattern in the direction of accommodation (fig. 2), and in either measure (fig. 3). To conclude, interpretations of accommodation based on phonetic distance or geographical distribution are not tenable for segmental temporal differences in the present data. Vowel quality characteristics, which are more prone to convergence than segmental temporal ones, may play a major role in diffusion of linguistic innovations and dialectal levelling. Socio-linguistic

factors – e. g. speakers' attitude toward their own and the other dialect, perceptual salience of examined dialectal features, dialect markedness - will be also brough into play in the interpretation of documented dynamic of short-term cross-dialectal accommodation.

Dialectal feature	Example with transl.	GR realization	ZH realization
ISG	Sonne 'sun'	nn ['sunnɐ] n [sunɐ]	n ['sunə]
OSL	Sohle 'sole'	V: ['so:lɐ] V ['solɐ]	V ['solə]
Red Vow	Suppe 'soup'	ɐ ['suppɐ]	ə ['suppə]

Table 1. Examples of items in GR and ZH for the three durational contrasts

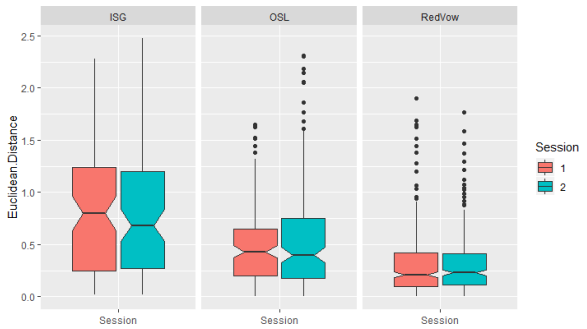

Figure 1 Euclidean distance within pairs across sessions (1 = before the interaction; 2= after interaction) for ISG (left), OSL (centre), RedVow (right).

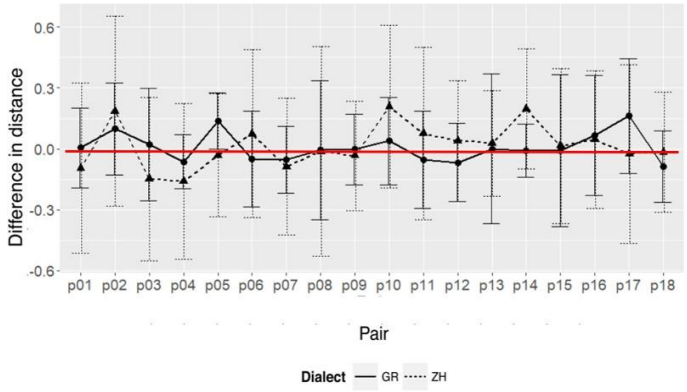

Figure 2: Difference in distance within speakers per pair and dialects.

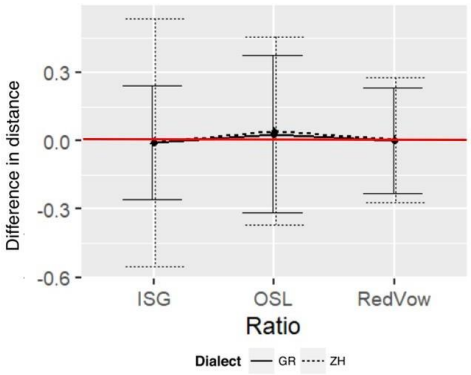

Figure 3: Difference in distance within speakers per ratio type and dialects.

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